Amendments to the Specification

Please make the following amendments to the specification. Changes relative to the immediate prior version are shown using strikethrough to identify deleted material and underlining to identify added material.

Please replace the paragraph bridging pages 1 and 2 (i.e., page 1, line 12 to page 2, line 2) with the following amended paragraph:

-- A flow cytometer has been conventionally used as a device for analyzing the type and ratio of particles contained in sample solutions. A typical flow cytometer guides sheath liquid and sample solutions which were appropriately diluted and dyed in advance to a sheath flow cell. In the flow cell, the sheath liquid flows surrounding the sample solution flow, and ~~make~~ makes the sample solution flow stream thin. ~~And laser~~ Laser light is radiated to the flow of the sample solution. Every time a particle passes through the laser light radiated area, scattered light and fluorescence are generated by the particle. The generated scattered light and fluorescence are photoelectrically converted by a photodiode and photo-multiplier tube, and the pulse-like detection signal is obtained for every particle. Counting and classification of particles are carried out by extracting the peak level and pulse width as parameters from the detection signals for respective particles. FIG.15 shows an aspect of a signal which detected particles, wherein the vertical axis expresses voltage, and the horizontal axis expresses time. Assuming that a particle is detected when exceeding a certain signal level (threshold), the peak level H (light intensity) and pulse width W (light emission duration) are calculated. Such flow cytometers are disclosed in U.S. Patent No. 5,731,867 and U.S. Patent No. 5,757,475. --

Please replace the third full paragraph on page 2 (i.e., lines 15-19) with the following amended paragraph:

-- When the pulsating flows are generated in the flow of the sample solution in this way, baselines of the detection signal of the scattered light and fluorescence ~~fluctuates~~ fluctuate in synchronization with ~~this~~ the pulsating flows if the refractive index

of the sample solution to be measured differs from that of the sheath liquid. That is, the detection signal includes fluctuation signals. --

Please replace the ninth full paragraph on page 3 (i.e., lines 22-23) with the following amended paragraph:

-- FIG. 9 is a waveform~~,~~ diagram showing a fluctuation eliminating effect according to this invention. --

Please replace the tenth full paragraph on page 3 (i.e., lines 24-26) with the following amended paragraph:

-- FIG. 10 is a waveform of a forward scattered light signal which detected a latex particle (particle diameter of 1μm) without ~~a~~ fluctuation signal eliminating processing according to this invention. --

Please replace the sixth full paragraph on page 4 (i.e., lines 24-29) with the following amended paragraph:

-- The flow cytometer according to this invention is particularly useful~~, in particular~~ when fine particles are analyzed as subjects, or when refractive indices of a sample solution and sheath liquid are different from each other. Further, it is useful, for example, when measuring microscopic bacteria, and when measuring fine water-soluble particles by using a dispersion medium such as alcohol. --

Please replace the paragraph bridging pages 5 and 6 (i.e., page 5, line 31 to page 6, line 12) with the following amended paragraph:

-- The signal processing part comprises a fluctuation judging part for judging the fluctuation of a signal from the time variation of the signal level received from the detecting part, a fluctuation signal producing part for producing a fluctuation signal based on the judging result in the fluctuation judging part, and a subtraction part for subtracting the fluctuation signal from the signal received from the detecting part, and may input~~,~~ the subtracted signal to the analyzing part. The signal processing part constituted in this manner extracts a signal that should be the base level from the

detection signals, and the signal level for which the base level is subtracted from the original detection signal level thereby~~,~~ eliminates the fluctuation signal. If the original detection signal is a low frequency fluctuation signal, the signal level itself is set to be the base level of the detection signal. On the other hand, the base level when the time variation of the signal level is large is a base level from immediately before the time variation of the signal level becomes large. --

Please replace the paragraph bridging pages 7 and 8 (i.e., page 7, line 22 to page 8, line 4) with the following amended paragraph:

-- The analyzing part analyzes characteristics of particles from the electric signal which are outputted from the detecting part or the signal processing part. For example, there is a method to grasp particle characteristics from the waveform feature of electric signal (e.g., peak level, pulse width, pulse area, etc.). The analyzing part may use a microcomputer or personal computer. The peak level of the forward scattered light signal is a parameter that mainly represents size of particle. The pulse width of the forward scattered light signal is a parameter that represents the length of the particle. If fluorescent dye is applied to a particle in advance, the fluorescent signal is detected. The peak level of the fluorescent signal is a parameter that represents the dye-affinity of the particle. The pulse width of the fluorescent signal is a parameter that represents the length of the dyed portion of a particle. Particles can be fractioned~~,~~ utilizing distribution of the particle size and the scattergram prepared by extracting these parameters from the electric signals. --

Please replace the paragraph bridging pages 9 and 10 (i.e., page 9, line 15 to page 10, line 2) with the following amended paragraph:

-- Below, the operation by which a sample solution and sheath liquid are delivered to the sheath flow cell 1 will be described. FIG.3 schematically shows a liquid system of the flow cytometer of this embodiment. Each part of the sheath flow cell 1, nozzle 2, mix chamber 14, sheath liquid chamber ~~14~~ 15, syringe 16, syringe 17, effluent chamber 18 and negative pressure source ~~20~~ 19 is connected by the passage TN. At first, in the mix chamber 14, the urine specimen is diluted and dyed, and the sample

solution is prepared. The sample solution in the mix chamber 14 is drawn into the passage between the mix chamber 14 and nozzle 2 by the negative pressure source 19. Next, the sample solution is delivered to the sheath flow cell 1 by operation of the syringe 16 driven by the stepping motor M1. Meanwhile, the sheath liquid is stored in the sheath liquid chamber 15 in advance. The sheath liquid in the sheath liquid chamber 15 is drawn into the passage between the syringe 17 and sheath flow cell 1 by the negative pressure source 19. Next, it is delivered to the sheath flow cell ~~1~~ 1 by operation of the syringe 17 driven by the stepping motor M2. The sample solution and sheath liquid which were delivered to the sheath flow cell 1 are discharged to the effluent chamber 18. For both of the stepping motors M1 and M2, PF42T-48G1 G(1/50)-01 manufactured by NIPPON PULSE MOTOR Co., Ltd. ~~is~~ are used. --

Please replace the second full paragraph on page 10 (i.e., lines 18-21) with the following amended paragraph:

-- FIG. 5 shows a basic configuration for the signal processing circuit 8. The original signal waveform data SD is a waveform~~,~~ sampling data sequence to which the analog particle detection signal is A/D converted with a sampling frequency which is sufficiently higher than the signal frequency. --

Please replace the third full paragraph on page 10 (i.e., lines 22-29) with the following amended paragraph:

-- The base signal judgment circuit 101 functions as a fluctuation judging part in accordance with this invention. That is, for the original signal waveform data SD, whether the above conditions 1, ~~2~~ 2, and 3 are satisfied is judged by the base signal judging circuit 101. If it is determined that these conditions are satisfied, it is judged to be a base signal. The original signal data that were satisfactorily judged are taken into the base signal producing circuit 102. The base signal producing circuit 102 functions as a fluctuation signal producing part in accordance with this invention. --

Please replace the fifth full paragraph on page 11 (i.e., lines 25-29) with the following amended paragraph:

-- This differential data is compared with differential partial judgment specified data RD by the comparator 24. If the differential data is below the differential partial judgment specified data RD, the comparator 24 turns the differential partial judgment signal showing a state where variation of the wave data is small to high, and outputs it. --